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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,581	06/17/2005	Seong-Yeol Hyeon	0630-2353PUS1	4329
2292	7590	10/03/2007		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER LEY, FRANCISCO M	
			ART UNIT 3746	PAPER NUMBER
			NOTIFICATION DATE 10/03/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/539,581

Applicant(s)

HYEON, SEONG-YEOL

Examiner

Francisco M. Ley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/17/2005 and 8/31/2007.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Page 8, Line 12, "volt" should recite "bolt".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Song (U.S. Patent 6,435,842).

Regarding Claim 1, Song discloses a reciprocating compressor comprising a reciprocating motor made of inner stator 4A and outer stator 4B disposed in a casing, and generating a driving force (Column 1, Lines 63-67). A compressor unit C is included for sucking, compressing, and discharging gas by the driving force of the reciprocating motor, and a resonant spring unit includes springs 7A and 7B for providing a reciprocating movement of the reciprocating motor with a resonant movement and two spring supporting frames, 1 and 2, by which the resonant spring unit is supported wherein one of the spring supporting frames is inserted into another spring supporting frame for being coupled with each other (Column 4, Lines 6-9).

Regarding Claim 3, Song discloses that the spring supporting frames comprises a first frame 1 for supporting a first spring 20a of the resonant spring unit, which is shrunk in compression operation of a piston 6 of the compression unit C, together with a spring seat 13 and connected with the piston 6. A second frame 2 is for supporting a second spring 20B of the resonant spring unit, which is shrunk in suction operation of the piston 6, together with the spring seat panel 13.

Claim Rejections - 35 USC § 103

4. Claims 2, 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song as applied to claims 1 and 3 above, and further in view of Parker (U.S. Patent 3,248,044).

Song discloses all of the claimed limitations as applied to claims 1 and 3 above, except that Song does not disclose that from the circumference of a first and second spring supporting portion, cylindrical portions are extended and joined, one inside of the other, by welding. However, Parker discloses cylindrical portions 12 and 13 that are part of the support portions for springs 24 inside a refrigerant compressor. Parker further discloses that the extended cylindrical portions 12 and 13 are joined one inside of the other and fastened at an outer circumferential surface by welding (Column 2, Lines 41-42).

It would have been obvious at the time the invention was made to modify Song to use cylindrical extensions on the spring supports that are joined by welding as is disclosed by Parker. Cylindrical extensions joined by welding have long been used to

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form casings for reciprocating compressors, and Parker discloses that the welded casing can also be used as part of a spring support structure.

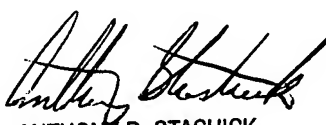
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco M. Ley whose telephone number is (571) 270-1299. The examiner can normally be reached on Monday-Friday, 8:30am-6:00pm, Alt Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached at (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000.

FML
September 20, 2007


ANTHONY D. STASHICK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700